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| 10/671,446 | 09/29/2003 | Fumihito Hatayama | 58604-030 | 6694 |
| 7590 McDermott, Will & Emery 600 13th Street, N.W. Washington, DC 20005-3096 | | | EXAMINER DHINGRA, PAWANDEEP | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/671,446

Applicant(s)

HATAYAMA, FUMIHIRO

Examiner

Pawandeep S. Dhingra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) 2,8,13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- This action is responsive to the following communication: Amendment after non-final rejection filed on 08/03/2007.
- Claims 2, 8, and 13-14 have been cancelled.
- Claims 1, 3-7, and 9-12 are now pending in the present application.

Response to arguments

Applicant's arguments, see pages 9-12, filed 8/3/2007, with respect to the rejection(s) of claim(s) 7-10 under Akiyama and claims 1-4 under Shiraishi in view of Ozaki and Akiyama have been fully considered and are persuasive. Therefore, the rejection(s) has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Doherty.

Drawing Objections

Previous drawing objections are withdrawn in view of applicant's amendments to the drawings and specification.

Claim Objections

Previous claim objections to claims are withdrawn in view of applicant's amendments to the claims.

Claim Rejections - 35 USC § 101

Previous 101 objections to claims 13-14 are withdrawn in view of claims 13-14 being cancelled by the applicant.

Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7, and 9-10 are rejected under 35 U.S.C. 103 as being unpatentable over Akiyama, EP 0 322 879 A2 in view of Doherty, US 5, 224,421.

Re claim 7, Akiyama discloses an image data creating apparatus (see figures 4-5) for creating image data for producing prints (i.e. displaying, note that it is well known in the art to print the data shown on the display screen), comprising: a representative point (i.e. reference point) setting means for setting representative points (i.e. reference points, see figure 3), for use in controlling color tones in images (see column 1, lines 1-

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30); and information storage means for storing, along with said image data, representative point information including information on positions of said representative points (see column 1, lines 49-53, column 4, lines 8-14, column 5, lines 32-37).

Akiyama fails to explicitly disclose means setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine for use in controlling color tones in images to be printed; and storage means for storing, representative point information including information on positions of said representative points set with respect to areas on the image data corresponding to respective ink key areas of a printing machine. Wherein, in said controlling color tones, an ink feeding rate is controlled, based on differences between color tones at the respective points and target color tones, by comparing image data of the prints produced and said representative points.

However, Doherty discloses means (see figure 1) for setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine (see abstract; column 3, line 4-column 5, line 64; claims 1, 7-12, note that respective points (representative points) are set with respect to the areas on the image data (printed product) corresponding to respective ink key areas (ink zone) of a printing machine (printing proof produced by the printing machine)) for use in controlling color tones in images to be printed (see column 1, lines 12-21; column 6, lines 3-7)); and storage means for storing (storage device, block 1, fig. 1) representative point information including information on positions of said representative points set with respect to areas on the image data corresponding to respective ink key areas of a

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printing machine (see abstract; column 3, line 4-column 5, line 64), Wherein, in said controlling color tones, an ink feeding rate is controlled (see blocks 4 & 10, fig. 1), based on differences between color tones at the respective points (respective points on the printed product) and target color tones (printing plate or proof), by comparing image data of the prints produced and said representative points (comparison and adjustments of the image data of the produced prints can be done by an operator or an automatic process) (see figure 1; abstract; column 3, line 4-column 6, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the image processing and correction system of Akiyama to include the color adjustment and controlling techniques as taught by Doherty for the benefit of having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as taught by Doherty at column 6, lines 3-7.

Re claim 9, Akiyama further discloses said representative point information stored in said information storage means is corrected (see column 4, line 15 - column 5, line 41).

Re claim 10, Akiyama further discloses image data correcting means for correcting said image data so that color tones (i.e. density data) at the representative points agree with target color tones (see column 4, line 15 - column 5, line 41); wherein said information storage means is arranged to store said representative point information including said information on the positions of said representative points

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along with the image data corrected by said image data correcting means (see column 4, line 15 - column 5, line 41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(b) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, and 3-4 are rejected under 35 U.S.C. 103 as being unpatentable over Shiraishi, US 2001/0038388 in view of Akiyama, EP 0 322 879 A2 further in view of Doherty, US 5, 224,421.

Re claim 1, Shiraishi discloses a printing control method (i.e. color management technique) in time of a printing operation having an image data creating process for creating image data for making the prints (i.e. printing plates), and a printing process for performing printing based on the image data created in the image data creating process (see abstract and para 0002). Shiraishi further discloses a printing process includes: an information receiving step for receiving printing information along with said image data; a printing ~~executing~~ execution step for executing printing based on said image data (see para's 0029, 0036 & 0037).

Shirashi fails to disclose a printing control method for controlling color tones of prints, and wherein said image data creating process includes: a representative point

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setting step for setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine, for use in controlling color tones in images to be printed; and a representative point information storing step for storing representative point information including information on the positions of said representative points set with respect to areas on the image data corresponding to respective ink key areas of a printing machine; and said printing process includes: a color tone controlling step for controlling ~~the color tones of the prints~~ an ink feeding rate, based on differences between color tones at the respective points and target color tones, by comparing image data of the prints produced in said printing by comparing image data of the prints produced in said printing executing step and said representative point information points.

However, Akiyama discloses a image data creating process (i.e. setting-up process) includes: a representative point (i.e. reference point) setting step for setting representative points (i.e. reference points, see figure 3) for use in controlling color tones in images (see column 1, lines 1-30); and a representative point information storing step for storing representative point information including information on positions of said representative points (see column 1, lines 49-53, column 4, lines 8-14, column 5, lines 32-37); and a color tone controlling step for controlling the color tones of the prints by using image data of the prints produced (i.e. displayed) and representative point information (see column 4, line 15 - column 5, line 41, and column 1, lines 4-7).

Doherty discloses setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine (see

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abstract; column 3, line 4-column 5, line 64; claims 1, 7-12, note that respective points (representative points) are set with respect to the areas on the image data (printed product) corresponding to respective ink key areas (ink zone) of a printing machine (printing proof produced by the printing machine)) for use in controlling color tones in images to be printed (see column 1, lines 12-21; column 6, lines 3-7)); and storage means for storing (storage device, block 1, fig. 1) representative point information including information on positions of said representative points set with respect to areas on the image data corresponding to respective ink key areas of a printing machine (see abstract; column 3, line 4-column 5, line 64), a color tone controlling step for controlling an ink feeding rate (see blocks 4 & 10, fig. 1), based on differences between color tones at the respective points (respective points on the printed product) and target color tones (printing plate or proof), by comparing image data of the prints produced in said printing by comparing image data of the prints produced in said printing executing step and said representative points (comparison and adjustments of the image data of the produced prints can be done by an operator or an automatic process) (see figure 1; abstract; column 3, line 4-column 6, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the method and device for managing print colors as disclosed by Shiraishi to include a density indicator as taught by Akiyama, and the color adjustment and controlling techniques as taught by Doherty for the benefit of having a *"density indicator for indicating the optical density level at a reference point on an image through an image correction process such as a colour correction and a tone correction"* as

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taught by Akiyama at column 1, lines 2-7, and having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as taught by Doherty at column 6, lines 3-7.

Re claim 3, Shiraishi disclose a printing process (see abstract of Shiraishi).

Shirashi fails to disclose that a printing process is carried out for correcting the representative point information stored in said image data creating process.

However, Akiyama further discloses displaying process is carried out for correcting the representative point information stored in said image data creating process (see column 4, line 15 - column 5, line 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the method and device for managing print colors as disclosed by Shiraishi to include a density indicator as taught by Akiyama, and the color adjustment and controlling techniques as taught by Doherty for the benefit of having a *"density indicator for indicating the optical density level at a reference point on an image through an image correction process such as a colour correction and a tone correction"* as taught by Akiyama at column 1, lines 2-7, and having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as taught by Doherty at column 6, lines 3-7.

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Re claim 4, Akiyama further discloses an image data correcting process (i.e. setting-up process) for correcting said image data so that the color tones (i.e. density data) at the representative points set in said representative point setting step agree with target color tones (see column 4, line 15 - column 5, line 41); wherein said information receiving step (i.e. transmission to CRT 64) is executed to receive said representative point information along with the image data corrected in said image data correcting process (see column 4, line 15 - column 5, line 41).

5. Claims 5-6, and 11-12 are rejected under 35 U.S.C. 103 as being unpatentable over Shiraishi, US 2001/0038388 in view of Akiyama, EP 0 322 879 A2 further in view of Doherty, US 5, 224,421 further in view of Muramoto, US 6,798,536.

Re claim 5, Shirashi further discloses image data creating process includes a platemaking data creating process step for creating platemaking data based on Raster Image Processing of multi-value image data (see abstract and para 0002).

Shirashi fails to disclose image data creating process includes a PDL data creating process step for creating PDL data, and a platemaking data creating process step for creating platemaking data based on said PDL data created in said PDL data creating process step, said PDL data creating process step and said platemaking data creating process step using common representative point information.

Muramoto discloses image data creating process includes a PDL data creating process step for creating PDL data and a platemaking data creating process step for

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creating platemaking data based on said PDL data created in said PDL data creating process step (see column 1, lines 17-20, column 2, lines 55-65, note that the generated PDL data is supplied to Raster Image Processor for creating image data for printing or platemaking purposes).

Akiyama discloses PDL data creating process step (note that corrected colour density data is PDL data) (see column 4, lines 15-56) and platemaking data creating process step (note that the corrected colour density data converted into YMCK data is the Platemaking data, see column 4, line 57 – column 5, line 25) using common representative point information (see column 4, line 15 - column 5, line 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the method and device for managing print colors as disclosed by Shiraishi to include a density indicator as taught by Akiyama, the color adjustment and controlling techniques as taught by Doherty, and apparatus for adjusting tone as taught by Muramoto for the benefit of having a *“density indicator for indicating the optical density level at a reference point on an image through an image correction process such as a colour correction and a tone correction”* as taught by Akiyama at column 1, lines 2-7, and for having a image processing system in which *“the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products”* as taught by Doherty at column 6, lines 3-7, and to adjust *“the tone curve displayed on the display apparatus in response to displayed image manipulations entered via a manual command input device”* as taught by Muramoto at column 1, lines 10-15.

(Also note that from the combined teaching of Shiraishi and Muramoto it is apparent that the multi-value image data of Shiraishi can be the PDL data, which then gets rasterized into high resolution output bitmap for platemaking purposes).

Re claim 6, Shiraishi discloses platemaking data creating process step (see para 0002).

Shirashi fails to disclose that platemaking data creating process step is carried out for correcting the representative point information used in said PDL data creating process step.

Akiyama discloses image data creating process is carried out for correcting the representative point information used in said PDL data creating process step (note that corrected colour density data is PDL data) (see column 4, line 15 - column 5, line 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the method and device for managing print colors as disclosed by Shiraishi to include a density indicator as taught by Akiyama, the color adjustment and controlling techniques as taught by Doherty, and apparatus for adjusting tone as taught by Muramoto for the benefit of having a *"density indicator for indicating the optical density level at a reference point on an image through an image correction process such as a colour correction and a tone correction"* as taught by Akiyama at column 1, lines 2-7, and for having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as taught by Doherty at column 6,

lines 3-7, and to adjust *"the tone curve displayed on the display apparatus in response to displayed image manipulations entered via a manual command input device"* as taught by Muramoto at column 1, lines 10-15.

Re Claim 11, claim 11 recites identical features, as claim 5, except claim 11 is an apparatus claim. Thus, arguments made for claim 5 are applicable for claim 11.

Re Claim 12, claim 12 recites identical features, as claim 6, except claim 12 is an apparatus claim. Thus, arguments made for claim 6 are applicable for claim 12.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pawandeep S. Dhingra whose telephone number is 571-270-1231. The examiner can normally be reached on M-F, 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on 571-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Pd
October 10, 2007


TWYLER LAMB
SUPERVISOR OF EXAMINER